

REMARKS

In response to the Office Action dated January 6, 2005, Applicants respectfully request reconsideration and withdrawal of the rejections of the claims.

Claim 1 was rejected under the first paragraph of 35 U.S.C. §112, as allegedly failing to comply with the enablement requirement. This section of the statute requires an Applicant to provide a written description of the invention in a manner sufficient "to enable any person skilled in the art to which it pertains...to make and use the same." The Office Action takes issue with the recitation in claim 1 that the counting operation takes place "externally of the smart card." It is respectfully submitted that the application provides an enabling disclosure of this claimed feature.

For example, Figures 1 and 3 illustrate an embodiment in which a smart card 5 communicates with a terminal 1. The terminal also communicates with a removable security circuit 7 that resides on a portable smart object 8. The counting operation recited in claim 1 can be performed by counters 16 and 17 that form part of the security circuit 7. One of ordinary skill in the art can readily appreciate that these counters are external to, i.e. outside of, the smart card 5. It is respectfully submitted this disclosure provides an enabling description of the claimed feature of counting, externally of the smart card, the number of times a request is made to the terminal. Reconsideration and withdrawal of the rejection is therefore respectfully requested.

Claims 1, 7, 10, 12 and 22 were rejected under the second paragraph of 35 U.S.C. §112. With respect to claims 1, 10, 12 and 22, the Office Action alleges that there is insufficient antecedent basis for the recitation of "the counted number" in these claims. It is respectfully submitted, however, that proper antecedent basis for this term is set forth in claim 1, line 6, which recites the step of "counting...*the number* of times..." It is respectfully submitted that a person of ordinary skill in the art would understand the term "the counted number" to be referring to the number that results from this claimed step.

With respect to claim 7, the Office Action refers to the recitation "the step of re-initializing." Claim 7 is a dependent claim, which depends from claim 1 and recites "further including the step of reinitializing the counted number..." Thus, the claim is reciting another step in addition to those recited in claim 1. When the claim is viewed as a whole, it is respectfully submitted that a person of ordinary skill in the art would understand the meaning of the claim. In other words, the recitation of "the step of re-initializing" as a *further* claimed feature is not one that requires antecedent basis. It is respectfully submitted that the claim is definite, as presented. If the rejection is not withdrawn, the Examiner is respectfully requested to explain why the claim is considered to be indefinite.

In response to the objection to claims 5 and 15, these claims have been amended to remove the reference characters.

Claims 1-5, 7-15 and 17-24 were rejected under 35 U.S.C. §103, on the grounds that they were considered to be unpatentable over the previously-cited *Tamada et al.* patent in view of newly-cited Published International Application WO 93/25024 (*Branham*).

Claims 6 and 16 were rejected under 35 U.S.C. §103 on the basis of these two references, in further view of the *Asad et al.* patent. For the reasons presented below, it is respectfully submitted that these references do not suggest the claimed subject matter to a person of ordinary skill in the art, whether considered individually or together.

In rejecting claim 1, the Office Action states that the *Tamada* patent discloses, among other features, the claimed step of counting, "externally of the smart card," the number of times a request is made to the terminal to execute sensitive operations, with specific reference to column 1, lines 36-43 and column 2, lines 54-62. It is respectfully submitted, however, that these portions of the patent do not disclose counting operations that are performed "externally" of the smart card. Rather, they only disclose that the RAM 35 has execution counters that count the number of times a specific program is run. This RAM 35 is an *internal* component of the smart card. See, for example, column 2, lines 32-44. As pointed out in Applicants' previous response, the *Tamada* patent only discloses a counter that is responsive to the number of times that the *IC card* executes a program. For this reason, it discloses a counter that is internal to the IC card. It does not disclose the concept of counting the number of times that a request is made to a given terminal. Hence, there is no reason, within the context of the *Tamada*, to perform any counting operations external to the IC card.

Although the Office Action contains the statement that the *Tamada* patent discloses a counting operation that is performed externally of the smart card, it apparently recognizes

that the reference does not, in fact, disclose such a concept. For this reason, reliance is made upon the *Branham* reference. The Office Action refers to the security device 15 that is separate from a host system 12, and suggests that it would be obvious to apply this teaching to the system of the *Tamada* patent. It is respectfully submitted, however, that there is no motivation to combine the teachings of these two references, absent knowledge of the present invention.

The *Tamada* patent is directed to portable data processing devices, such as IC cards, and more particularly to the protection of secret programs stored on such cards. As noted in the background portion of the patent, the algorithm of such programs can be discovered, if the programs are run millions of times. To protect against such discovery, the *Tamada* patent discloses a procedure that limits the number of times a program can be run.

In contrast, the *Branham* reference is concerned with preventing the infection of a network file server by computer viruses. To meet this objective, the patent discloses an external security device that stores copies of the boot sector and file allocation table for the file server, as well as information about executable files on the file server. The security device monitors access to the file server, and informs a network monitoring host if the boot sector, file allocation table or electronic fingerprints are altered. In response to such a notification, the network monitoring host performs corrective actions.

It is respectfully submitted that the teachings of the *Branham* reference have nothing to do with the IC card of the *Tamada* patent. The *Branham* reference is concerned with protecting a network host from viruses that could be transmitted over the network. In contrast, the *Tamada* patent is concerned with maintaining the secrecy of programs stored on an IC card. All of the actions necessary to maintain such secrecy are performed

internally within the card. There is no reason for conducting any operations external to the IC card. As such, there would be no reason to employ an external security device of the type disclosed in the *Branham* reference.

Furthermore, the type of security with which the *Branham* reference is concerned, i.e. protection against computer viruses, is not at all analogous to the objectives of the *Tamada* patent. If one were concerned with maintaining the secrecy of programs stored on a device, what motivation would there be for referring to the *Branham* reference, which is concerned with computer viruses? It is respectfully submitted that there is none. The reason for citing the *Branham* reference in the Office Action, namely its disclosure of an external security device, can only be based upon knowledge of the present invention, and not upon any nexus between the teachings of the *Tamada* patent and the *Branham* reference.

Accordingly, it is respectfully submitted that it would not be obvious to combine the teachings of the two references since neither of them discloses any motivation for doing so. Reconsideration and withdrawal of the rejection is therefore respectfully requested.

Claim 3 depends from claim 1 and recites the further steps of dividing the sensitive operations into a number of classes, and establishing a count for each class. Claim 13 depends from claim 2, and recites similar subject matter. In rejecting these claims, the Office Action refers to the *Tamada* patent at column 3, lines 4-37. It is not apparent how this section of the reference is being interpreted to suggest the claimed subject matter. There is no discussion of dividing operations, e.g. executions of the program, into a number of classes, and establishing a count for each class. Rather, this portion of the patent only discusses counting the number of times "the specific program" is run. As such,

it only discloses a *single* class of operations. If the rejection of claims 3 and 13 is not withdrawn, the Examiner is respectfully requested to explain how the patent is being interpreted to suggest the subject matter of these claims.

- Applicants' previous response pointed out the distinguishing feature of claims 7 and
- 17, and the reasons why the *Tamada* patent could not be interpreted to disclose this subject matter. The most recent Office Action repeats the ground of rejection, but fails to respond to Applicants' arguments traversing the rejection. If the rejection is not withdrawn, the Examiner is respectfully requested to explain how the reference can be interpreted to suggest the claimed subject matter, or otherwise address Applicants' arguments.

Similarly, Applicants' previous response pointed out why the subject matter of


- claims 11, 21 and 24 is not suggested by the portions of the *Tamada* patent that were
- referenced in the Office Action. Again, however, the most recent Office Action repeats the rejection, without addressing Applicants' comments. It is respectfully submitted that, if the rejection of these claims is not withdrawn, Applicants are entitled to an explanation of the manner in which the patent is being interpreted to suggest the claimed subject matter in view of their traversal.

In summary, it is respectfully submitted that there is no apparent motivation to combine the teachings of the *Tamada* patent and the *Branham* reference, absent knowledge of the present invention. Furthermore, even if the teachings of the two patents could be combined, a number of features recited in the claims are neither disclosed nor otherwise suggested by the references. Reconsideration and withdrawal of the rejections are respectfully requested.

Respectfully submitted,

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